

Seven Categories Are in Testing

Approximately 25 vendors with instruments spanning seven air and water monitoring technology categories are expected to participate in or complete verification tests conducted by the AMS Center in coming months. Here is a summary of the current status for each category.

Optical open-path monitors.

Spectrex of Cedar Grove, NJ, completed this test for two of its instruments last October at Battelle's research site near West Jefferson, OH. The verification reports were finalized this month and are posted on the ETV web site (<http://www.epa.gov/etv>) along with the verification statements. Contact: Jeff Myers, 614-424-7705 or myersjd@battelle.org.

Ambient fine particulate monitors.

The second phase of this test started in mid-December and was completed in January at an EPA SuperSite in Fresno, CA. Seven vendors with 13 monitors participated in Phase 2 and in the first phase, which was conducted last summer at the U.S. Department of Energy's (DOE) National Energy Technology Laboratory in Pittsburgh, PA. Draft reports are being prepared and final reports are expected to be available on the ETV web site by late summer. Contact Ken Cowen, 614-424-5547 or cowenk@battelle.org.

Turbidimeters. ABB of Lombard, IL, had an instrument tested in April at a municipal water plant in Columbus, OH. The test report is being reviewed by the vendor and peer reviewers and is expected to

(See Testing on page 2)



Representatives from the six ETV Centers attended a team meeting in May. Supplies of the ETV Stand and Disk (inset) were distributed to each Center for presentation to vendors completing verification tests.



ETV Program Team Reviews Progress, Contributions

The gathering in early May of representatives from the U.S. EPA's Environmental Technology Verification Program (ETV) and its six technology centers heard good news about the state of ETV, its future challenges, and new incentives for vendor participation.

Mr. Timothy Oppelt, Laboratory Director for the U.S. EPA's National Risk Management Research Laboratory, noted the ETV program's success and EPA's continued commitment to the program's future.

Ms. Penelope Hansen, EPA/ETV Program Director, described the program's accomplishments, honors received, and principles established since ETV's origin in 1995:

Accomplishments

- 115 technologies verified (15 by the AMS Center), 111 in the testing process and 138 applications pending (see accompanying article for current information about verification tests scheduled or planned by the AMS Center)
- 89 meetings held by 18 stakeholder committees with 1,062 members
- 60 generic protocols and 84 technology-specific test plans developed

Honors

- Vice Presidential Hammer Award, 1998
- Bronze medal for quality management planning, 1999
- Semi-finalist for Ford Foundation/Harvard Innovations in American Government Award, 2000

(See ETV Team on page 2)



The AMS Center is part of the U.S. Environmental Protection Agency's Environmental Technology Verification Program. ETV was established to accelerate the development and commercialization of improved environmental technologies through third-party verification testing and reporting of the technologies' performance. The ETV process provides purchasers and permittees with an independent assessment of the technology they are buying or permitting and facilitates multi-state acceptance. For further information, contact Helen Latham at Battelle, 505 King Ave., Columbus, Ohio 43201-2693; Phone 614-424-4062; Fax 614-424-5601; E-mail lathamh@battelle.org.

Testing *(from page 1)*

be available on the ETV web site by late this summer. Contact: Ken Cowen (see above).

Multi-parameter water probes.

Representatives of seven companies attended a vendor meeting in January at Battelle's facilities in Columbus to provide input to the verification test/QA plan. The draft test/QA plan was sent for review and comment to six interested vendors. The test is expected to be scheduled this summer. Contact: Jeff Myers (see above).

Mercury CEMs. Four instruments submitted by three vendors were tested in the first phase of the verification test of commercially available continuous emission monitors (CEMs) for mercury. The test was conducted in January at the Rotary Kiln Incinerator Simulator (RKIS), a pilot-scale combustion facility at the Environmental Research Center, a part of EPA's National Risk Management Research Laboratory (NRMRL) at Research Triangle Park, NC. The draft verification reports for the first phase will be sent for review to the participating vendors this month. Phase 2 of the verification test is to be conducted at a full-scale facility or facilities. Contact: Tom Kelly, 614-424-3495 or

kellyt@battelle.org.

On-board vehicle emission monitors.

A four-day verification test of an on-board emission monitor in gasoline-powered vehicles was conducted this month at the Automotive Testing Laboratories in E. Liberty, OH. The company is Clean Air Technologies of Buffalo, NY. The draft verification report will be sent to the vendor for review by mid-June. After peer reviews, the final verification report and verification statement are expected to be issued by September. Contact Tom Kelly (see above).

Portable water quality analyzers. A verification test was conducted for the Nitrate Elimination Co., Inc.'s (NECI) portable field nitrate test kit (model F-NTK-01) in January and February at seven locations. The draft verification report is being reviewed by the vendor. A second round of testing for this technology category will focus on arsenic analyzers. Five vendors have expressed interest in the test, which may be held in late summer. Instruments will be tested in detecting arsenic in drinking water, prepared laboratory samples, and three surface water sources in the Columbus area. Contact Adam Abbg, 614-424-5484 or abbgva@battelle.org.

Six additional technology categories were ranked as high priorities for testing by the AMS Center's air and water stakeholder committees. Verification tests are planned for the following air and water technologies:

Air

- Instruments to monitor organic speciation of vapors in stacks (e.g., dioxins, benzene, phenol)
- Leak detectors for fugitive emissions from valves and flanges
- Portable electrochemical SO₂ analyzers
- Continuous emission monitors (CEMs) for ammonia "slip" from NO_x catalytic control technologies.

Water

- Rapid detectors of biological contaminants
- Microbiological methods and sensors to detect chemical contaminants.

ETV Workshop Set in India

The ETV program, in partnership with the U.S.-Asia Environmental Partnership, U.S. AID, and the Federation of Indian Chambers of Commerce and Industry (FICCI), will convene India's first workshop on environmental technology verification the week of September 9. For additional information, contact Dennis Cunningham, EPA's Office of International Activities, phone 202-564-6622, or e-mail at cunningham.dennis@epa.gov.

ETV Team *(from page 1)*

- EPA Office of Research and Development Statesmanship of the Year Award for ETV Customer Service, 2000
- New England Governors' Resolution of Commendation, 2000

Principles

- Voluntary program for commercially ready private sector technologies
- High-quality data and information—not an "approval" process
- Public-private sector partnerships to efficiently execute testing
- Collaboration and cost-sharing on verification tests
- A "market-based" program through ongoing stakeholder participation
- Web-based publication of all products.

"The stakeholders have been major contributors to the ETV Program in every area," Ms. Hansen said, "and the protocols for verification testing are a major scientific contribution to the technology commercialization field." She cited the ETV test protocols as having become international standards, especially the arsenic control and monitoring protocols.

Several promotional benefits are available to vendor companies that complete an ETV verification test, including posting the test reports and verification statements on the ETV web site, distributing technology profiles, and news announcements.

Beginning this month, ETV is also providing an ETV Stand and Disk for vendors who complete the verification process. Vendors can display these items at exhibits and conferences to show that their technologies have been verified by the ETV Program. This month the AMS Center is sending the Stands and Disks to vendor companies that are eligible to use them.

Upcoming Events

June 2001

17-21 AWWA 2001, Grand Hyatt Washington, Washington, DC. ETV will exhibit at this event.

24-28 A&WMA 94th Annual Conference & Exhibition, Orange County Convention Center, Orlando, FL. The ETV program will exhibit at this event. Jeff Myers of Battelle and vendors who participated in the AMS Center's verification test of optical open-path air monitors will discuss their experiences in a session titled "Validation of Optical Sensors."

September 2001

9-14 Environmental Technology Verification Workshop, India (see article above).

October 2001

4-5 AMS Center's water stakeholder committee, Coeur d'Alene, ID

18-19 AMS Center's air stakeholder committee, Seattle, WA